DOCUMENT RESUME

ED 111 767 SP 009 456

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TITLE Planning and Costing Implications in American Teacher Education Programs.
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PUB DATE Aug 74
NOTE 14p.

EDRS PRICE MF-$0.76 HC-$1.58 Plus Postage
DESCRIPTORS *Cost Effectiveness; Costs; Educational Finance; *Educational Innovation; Educational Planning; *Models; *Program Costs; *Teacher Education

ABSTRACT

This report presents a costing model for teacher education programs. It explains that this is necessary since most teacher education innovations in the United States extensively use technological support, and involve high cost personnel, materials, and systems. The report also notes that the present state in planning and cost projections requires not only establishing present and projected realities as to type of school, instructional program, personnel, organization, and management system; but that it also requires organizing the pieces of the training support system in order to support this proposed reality. The report then presents a model for personnel development which specifies activities that surround and support the training event, so that cost factors can be analyzed. The report also describes some of the situational factors which surround the event, and which may or may not affect cost. All of the factors involved in the training event have an actual social and financial or personnel cost, and each has its own outcomes as well. According to the report, the model makes it possible to sort out these outcomes as well as to identify and project cost for the training event outcome itself. The report also states that the model enables evaluation of training programs, identifies gaps to be filled, and points out where redundant effort has been placed. (BD)

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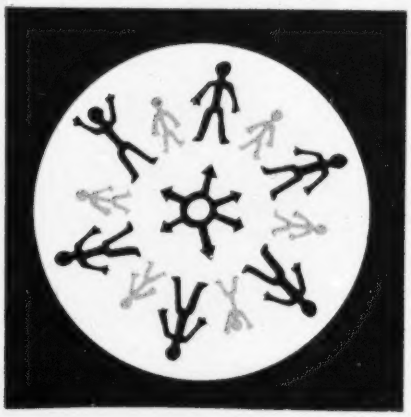

PLANNING AND COSTING IMPLICATIONS

IN

AMERICAN TEACHER EDUCATION PROGRAMS

By:

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August, 1974

SP009 156

PLANNING AND COSTING IMPLICATIONS IN AMERICAN TEACHER EDUCATION PROGRAMS

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Introduction

Teacher education and training whether pre-service or in-service is a vehicle for transmitting or installing an innovation or a tradition. Teacher education then is a process of a system not primarily the effect of a system.

Trends in education dictate that teacher education as a process must alter ways of doing things, the place of doing things, the people used to do things, and the people things are done to. Each of these factors can carry some cost for planning, testing implementation, and evaluation. Developments in education and teacher education are concurrent and related but not systematically linked. No interrelated master plan has yet been developed. No coherent costing pattern exists.

An important lesson of the American experience is that throwing money, people and solutions at problems may feel good, but effective social reform or improvement comes when all the cost, societal and personal factors to be considered can be identified. To identify the universe of factors to be considered, a critical point of reference needs to be established. Much of the writing in teacher education in the U. S. has assumed this point of reference to be the school, certification, the training program qua program, or the instructional materials and methods used. None of these focuses are incisive; they do not provide a point of reference for all other factors. None of these focuses are operative; they are not the point where education trends and needs meet teacher education as a process (or system). Needs for teachers in a social system sense are from three kinds of things:

(1) different instructional materials

(2) different organizational contexts

(3) different technologies

Persons who would be teachers connect with any instructional method, organizational context or technology at a training event. These events occur throughout the life of teachers, though more sequentially and in a structured fashion during teacher education at a college. Another major portion of these events occurs after persons have begun teaching, including what is called in-service education.

Planning for teacher education and subsequently costing teacher education requires establishing a point of reference. The training event, at which an innovation or reinforcement "takes hold", and at which planned changes connect with the person who implements change and controls its level and quality, constitutes this point.

Most teacher education innovations in the U. S. extensively use technological support, and involve high cost personnel, materials and systems. These costs are heightened because existing programs or components are seldom integrated or curtailed when new technology, personnel, materials, systems and organization of schools, training institutions, and community are installed.

Costing Model

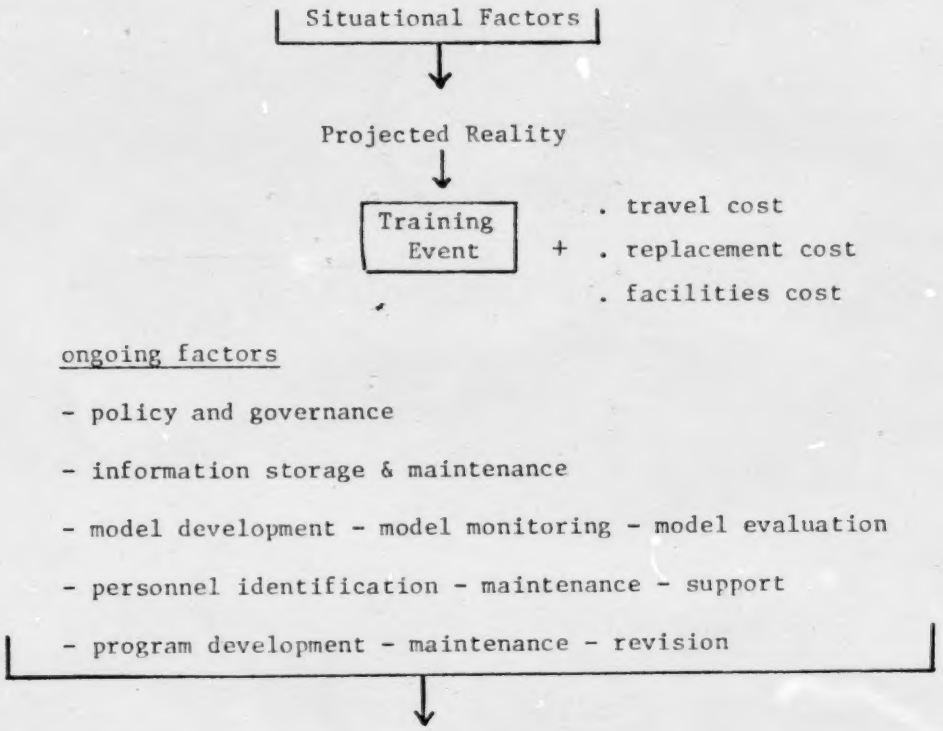
The present state in planning and cost projections in the U. S. requires not only establishing the present reality and the projected reality as to kind of school, kind of instructional program, kind of personnel, kind of organization, kind of management system, it also requires organizing the pieces of the training support system to support these pieces of proposed reality.

Keisling (1970) and Joyce (1972) have explored the dimensions of this problem with regard to innovations they are interested in. Behind the descriptions of the pieces needed to support the installation of the innovation are the parts of a planning and costing model which is not articulated. It is possible from their work to posit the following model for personnel development; for developing

a person and innovation responsive training event. The model specifies activities which surround and support the training event so that cost factors can be analyzed. The model also specifies some of the situational factors which surround the event, and may or may not affect the cost. The model recognizes that some activities preceed the training event, but begins from the assertion of a training event situation cost and training event cost.

TABLE A

Outline of Cost Factors



PERSONNEL DEVELOPMENT PLANNING AND COSTING MODEL

A. Situational factors to be considered and costed (if possible)

1. interaction effect of innovation/trainee/environment
2. place of event
3. length of event
4. number of persons
5. density of program for trainee to reach
   - . understanding
   - . acceptance
   - . performance
6. relation to other training events
   - . learning interdependence
   - . time sequence
7. intensity of need (immediacy of response)
   - . for trainee
   - . for environment

B. Training Event Cost

. Actual cost

1. trainer cost
2. trainee cost
3. materials and supplies cost
4. equipment
5. facilities
6. planning and designing cost

C. Cost Preceeding Event

1. Identification cost

(a) people (trainer and trainee)

- listing

- recruitment

- selection

(b) things (programs, organizations, materials)

- catalog of characteristics of environment

- catalog of needs

- catalog of availability innovations

2. Model Development Cost

(a) identification and selection of components of model

(b) build, borrow, or acquire usable "model"

3. Program Development Cost

(a) materials development

(b) people development

(1) trainer training

(2) trainee background development

(3) people needed to "back up" personnel while they are in training

(c) facilities

(d) equipment

Note: Many training programs presently include much of these development costs in the training event budget since development is ongoing with installation because of the intensity of need. It is suggested that such cost be separately reported even in that case, since different purposes are being served.

D. Cost Which Occur Before, During and After Training Event

1. Policy and Governance Cost

(a) Board - academic, educational, legal

- development

- maintenance

Note: This is where "control and agreement" issues are addressed. Many community board training programs should be costed here or treated as a different training event for special population of the interactive system

(b) Management

- development of system and persons
- maintenance of system and persons
- special support

(c) Evaluation

- development of system and persons
- maintenance of system and persons

Note: This is where the actual certification and accreditation events are costed.

2. Information Storage and Maintenance Cost

. identification

. implementation

. feedback

3. Noise and Conflict Cost

. politics

. mobility of people resources

. mobility/overcommitment/underutilization of material/equipment/facilities

. career charge for trainees

E. Additional Cost During Event

1. Special Support Cost

(a) for trainees (sometimes occurs after event also)

- tutorials
- counseling
- family allowances
- travel
- room and board

(b) for trainers (in content or process)

- experts
- consultants

(c) for evaluators

2. Movement Costs

(a) to practice site

(b) to observation site

(c) of persons to training site

3. Replacement Costs

(a) trainee (primarily substitutes)

(b) trainer (faculty "gap-filling" in normal program)

Note: This may be the place to include the cost of "carrying" an obsolete faculty member with tenure.

(c) equipment and materials

Note: Particularly duplicate need cost.

4. Development of Development Expertise Cost

(a) analysis and documentation

(b) model articulation

(c) report preparation

Note: This is different from using the training event as the model building or basic expertise development activity categorized earlier. This cost is the actual cost of oversight and review of the training event as a further test of how an innovation or refinement is transmitted; it is not the same as management oversight and review. It assures that development for the next similar event is linked to the present event so that the projected training solution for assisting in installing an innovation becomes a problem finding exercise about (a) how persons (teachers) learn, (b) how trainers teach, and (c) how materials work.

The proposed model for planning and costing does identify the training event as the focus point of a complex interaction of factors each of which has an actual social and financial or personnel cost. It should be noted that each factor has its own outcomes also. For example the policy and governance factor has outcomes for institutional well being and development which while related to and connected to the training event are not the outcomes of the training event.

The outcomes of the training event itself are:

for the Trainee

. some level of understanding, acceptance, and performance of the intended innovation

for the Trainer

. a test of the training procedure, materials, etc.

for the System

. some number of trainees (at different levels of competence in the innovation)

. some advance (regression)

(1) the trainer expertise

(2) other program and model development

(3) information

(4) management expertise

(5) other policy and governance expertise.

While the model makes it possible to sort out these outcomes, it also makes it possible to identify and project cost for the training event outcome in and of itself. Present literature does not seem to provide descriptive information that costs program in this fashion.

Conclusion

The potential value of the model is in its effect on systematic personnel development. One can identify the present status and alternative status of training programs; one can identify gaps to be filled; one can identify factors where abundant and probably redundant effort has been placed. It does provide a framework by which training can be targeted and distinguished from institution building, innovation development, and even exploration. The model does place the learning teacher and the event providing that learning at the focus of program development and financing. It does require a more detailed and systematic analysis of the innovation to be installed in a given place; more importantly, it requires a more detailed and systematic analysis of what trainee (teacher) needs are in that situation and what trainer and program development capabilities are to serve that training event.

As a model it can be used to reinforce the personnel development programs of each institution in the system by providing a framework for:

(1) gathering information about present and projected state of the classroom.

(2) identification of gaps and needs of personnel and trainers

(3) systematic retrieval of information

(4) analyzing and re-analyzing data

(5) training and orientation of all of the clients of the training system: managers, trainees, researchers, as well as teachers and policy personnel form the community

(6) developing revised programs for assignment, transfer, promotion, training, preparation and retirement of personnel

(7) for checking and revising steps of the procedures for "functionality".

In this way it is possible to develop an interrelated planning and costing model which can answer the questions

(1) What is the environment?

. what is and what should be

. who is and where are they

. what resources are available and can be assigned to this task

. how are the pieces interrelated as an on-going training and institution building task

(2) What is the change?

. what are the innovations

. what is the acceptable innovation in a setting

. who decides the innovation

. who clarifies and articulates the innovation

. who practices the innovation

(3) What is the time frame?

. when does the innovation have to be in place

. how long does training take to reach an acceptable level of

- understanding
- acceptance
- performance

of the innovation by the teacher and by the setting

. how long does model and program development require

. how long does it take to develop a support system including Information Storage and Feedback, Overnight and Review, Evaluation

(4) What is the personnel need

. what is main need in relation to innovation selected

. what is need in relation to number of pupils

. what is need in relation to available expertise for training and development

. what is need in relation to cost and level of technology

It is only after enough persons have gone through the complete cycle of innovation development, installation and evaluation that one can focus the actual need and cost for teacher education. There may be no need to invest huge sums in training events where the learning need at a stage of development or installation is the performance of existing behaviors in a slightly modified fashion. Short, intense, sequences may be all that is needed and a massive super structure of academic degree program may be irrelevant. Actual investment in new training may be minimal if the change to be learned in a training event can be specified.

This model for costing a staff development program assumes that training program is costing point and that invisible cost should be identified.

Visible costs are training program costs

1. TRAINER (Salary, Travel, Expenses)
2. TRAINEES (Room, Board, Other)
3. Materials
4. Equipment
5. Facilities
6. Management

Invisible Costs are

A. Development cost to get

(1) Trainee to the point where training program can be effective

(2) Trainer to the point where trainer can be effective

(3) Materials equipment and facilities to the point where they are trainee and trainer usable.

B. Replacement costs

(1) to provide for trainer replacement in "regular" program or as "back-up"

(2) to provide for person to do trainees job while he is in training

Further work on actual cost for training needs to be urgently pursued.

August 1974

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